Headquarters Air Combat Command

USAF Self-propelled Munitions

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This Briefing is:
UNCLASSIFIED

OVERVIEW

- AIR SUPERIORITY
- SUPPRESION OF ENEMY AIR DEFENSES
- INTERDICTION
- CLOSE AIR SUPPORT
- QUESTIONS

AIR SUPERIORTY

“Global Strike assets must be able to obtain first look first shot engagements against adversary aircraft.”

Global Strike CONOPS, 4 June 2003

AIM-7 Sparrow

DESCRIPTION

- Supersonic, medium range, radar guided missile
  - First employed in Vietnam (E variant)
  - AIM-7M- only variant still in operation
    - H-build-improved guidance
- 56 Kills in Vietnam
- 24 Kills in Desert Storm

STATUS

- AIM-7M phasing out of USAF inventory starting in 04

FUTURE

- Replaced by AIM-120

AIM-9 Sidewinder

DESCRIPTION

- Supersonic, heat seeking, air to air missile (A-X variants)
- Carried by all tactical fighters
- Most widely proliferated missile in NATO
- 72 kills in Vietnam
- 8 kills in Desert Storm

STATUS

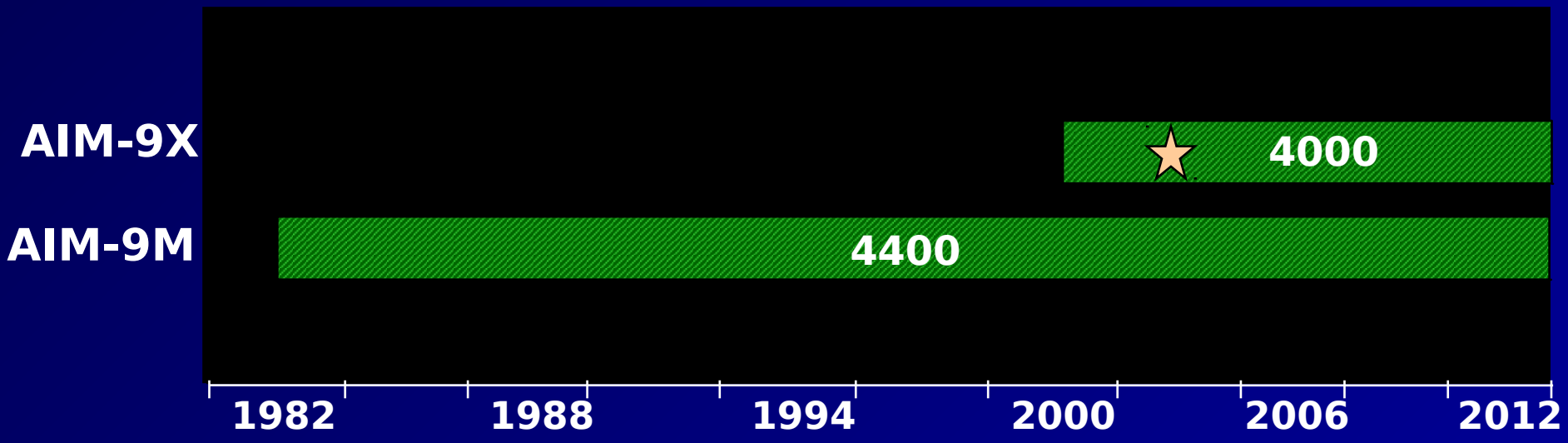
- AIM-9M and AIM-9X are the USAF's only variants in operation.
- AIM-9X replacing AIM-9M
  - Fielded at Elmendorf

FUTURE

- AIM-9X
  - Imaging Focal Plane Array (FPA) seeker
  - Thrust vectoring
  - High Off-Boresight capability
  - Joint Helmet Mounted Cueing System (JHMCS) is an enabler

AIM-9 Sidewinder

TOTAL AIM-9M-7/9 AUR = 4400
TOTAL AIM-9X AUR = 4000



AIM-120 (AMRAAM)

DESCRIPTION

- Advance Medium Range Air to Air Missile
  - Fire and Forget
  - Carried on F-15, F-16, F-14, F-18, F-4, F/A-22, F-35
- 5 Kills in Allied Force
- 1 Kill 1992 Southern Watch

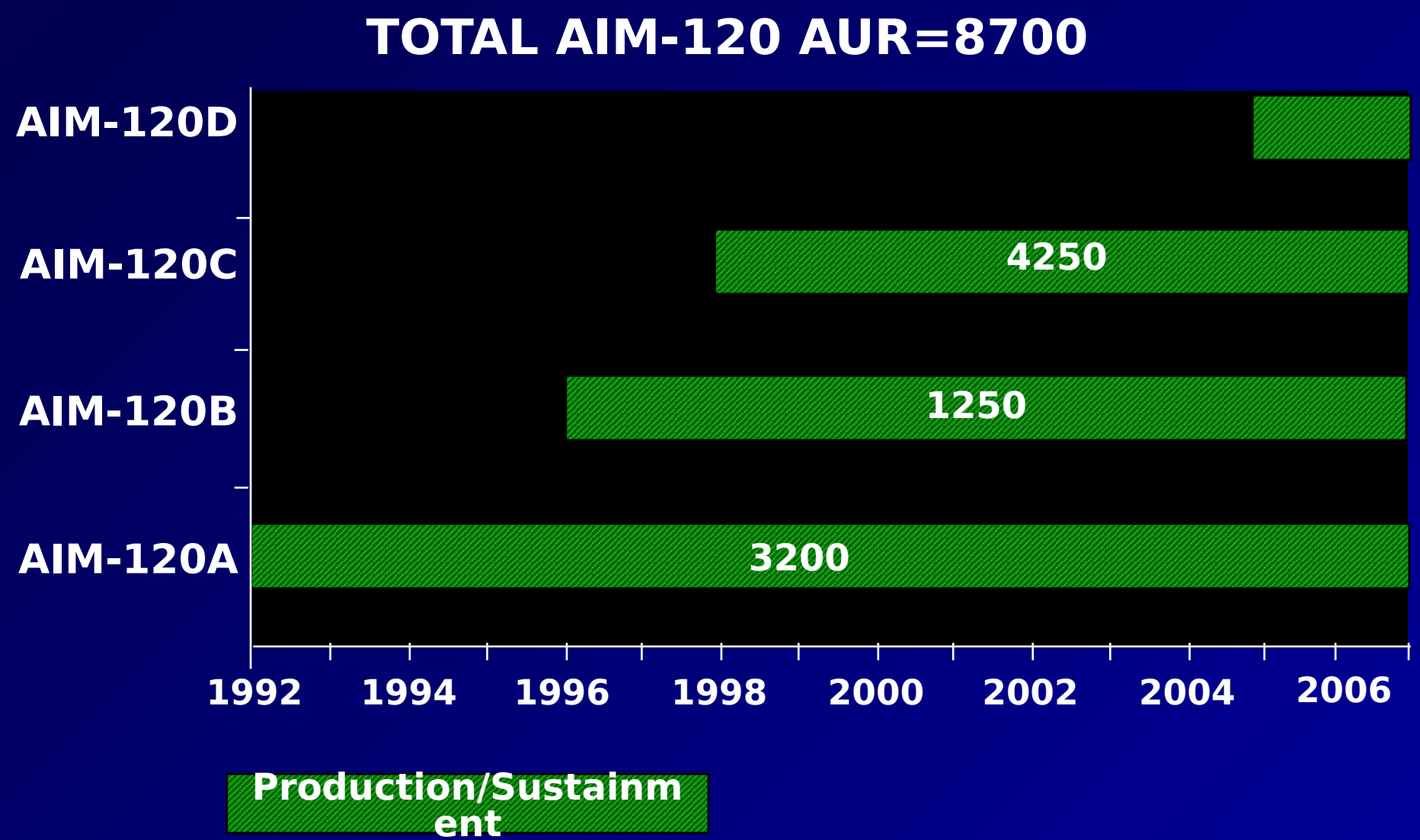
STATUS

- AIM-120C Phase 3 development effort progressing to Mar 04 completion
  - Improved Electronic Protection and lethality
- 85% missile success rate (within lethal radius); tests conducted Oct 02 – Dec 03 (214 test launches)

FUTURE

- AIM-120D
  - Joint USAF/USN
  - Improved data link
  - Greater kinematics
  - Improved HOBS

AIM-120 (AMRAAM)



SUPPRESION OF ENEMY AIR DEFENSE (SEAD)

"Global Strike assets must be able to **rapidly detect, locate, destroy, or suppress** enemy air defenses using core capability residing on strike assets."

Global Strike CONOPS, 4 June 2003

AGM-88 High Speed Anti-Radiation Missile (HARM)

DESCRIPTION

- ~7000 HARMs in USAF inventory including AGM-88B and AGM-88C
- CAF's only reactive SEAD weapon
- Carried by HTS-equipped Block 50 F-16s and select Block 30 units

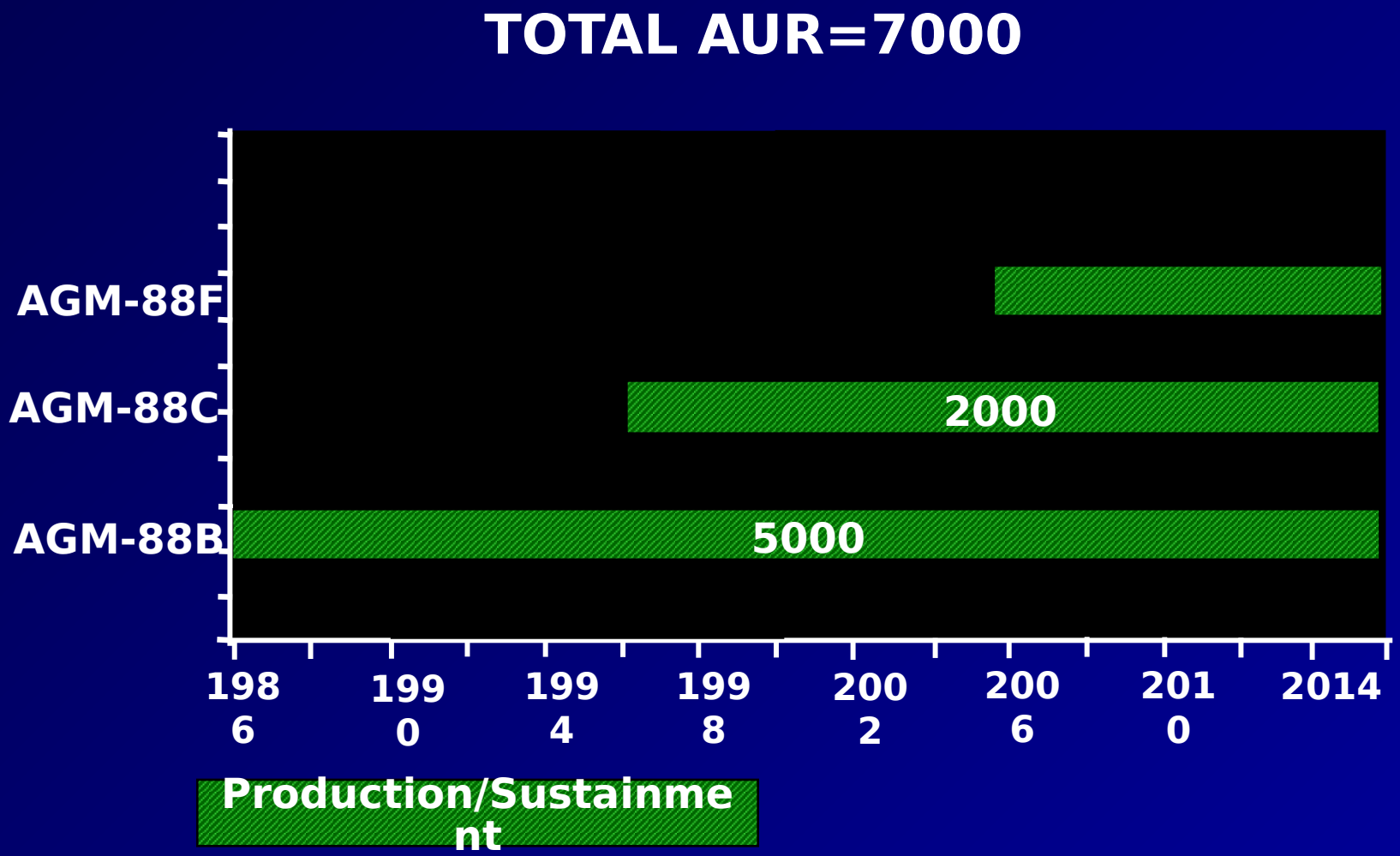
STATUS

- AGM-88B/C Block IIIA/V software fielded 2QFY00
  - Provides limited geospecificity
  - Improves performance against advanced emitters
- In sustainment

FUTURE

- AGM-88F
  - INS/GPS enables counter shutdown capability
  - Improved seeker

AGM-88 HARM


TOTAL AUR=7000
AGM-88F
AGM-88C
AGM-88B
2000
5000
1986
1990
1994
1998
2002
2006
2010
2014
Production/Sustainment

INTERDICTION

"Global Strike CONOPS requires the capability to attack a limited range of heavily defended high value assets with minimal risk to manned aircraft."

Global Strike CONOPS, 4 June 2003

Joint Air-to-surface Stand-off Missile (JASSM)

DESCRIPTION

- >200 NM range, stealth and precision standoff, all weather
- Autonomously attacks center-of- gravity targets under umbrella of next generation defense systems
- Kills hardened and non-hardened, fixed & relocatable targets
- Funded: F-16, B-52, B-2, B-1
- Unfunded: F-117, F-15E, JSF
- CAIV flagship AGM program

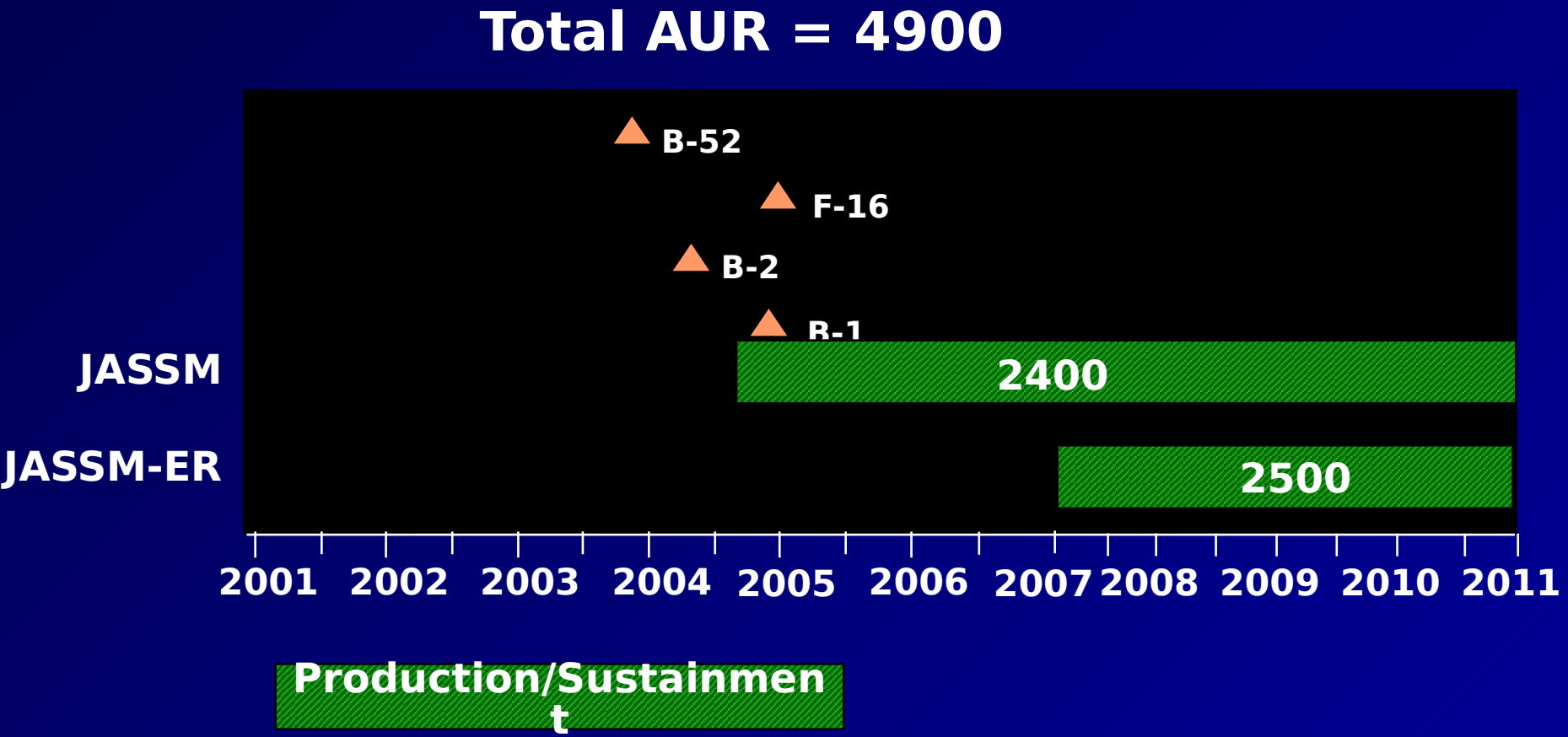
STATUS

- LRIP Dec 01 - initial buy 76 missiles
- OT successfully completed Sep 03
- FOT&E for F-16 M3+ underway
- RAA (B-52H) complete Sep 03

FUTURE

- JASSM-ER directed by SecAF
- Baseline/ER Mix: 2400 baseline, remainder ER
- CSAF interest in two-way communications capability on JASSM

JASSM


Total AUR = 4900
B-52
F-16
B-2
B-1
JASSM
2400
JASSM-ER
2500
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
Production/Sustainment

Joint Dual Role Air Dominance Missile (JDRADM)

DESCRIPTION

- Single missile for Air to Ground and Air to Air
- Enhanced capability
  - Increased standoff
  - Enhanced lethality
  - Enhanced propulsion and agility
  - F-35, F/A-22, UCAV, and legacy A/C

STATUS

- Joint USAF and USN
- Capabilities, integration, and development analysis process initiated

FUTURE

- JDRADM is the future

CLOSE AIR SUPPORT

"Persistent operations will include fighters and weapons necessary to sustain full-spectrum joint and combined operations such as targeting mobile targets and Close Air Support (CAS)."

"Global Strike Task Force" 2001

AGM-65 Maverick

DESCRIPTION

- Precision air-to-ground missile
- AGM-65 A/B TV Mavericks
- AGM-65 D/G IR Mavericks (night)
- AGM-65 H/K TV Mavericks (new)
- 85% success rate in Desert Storm

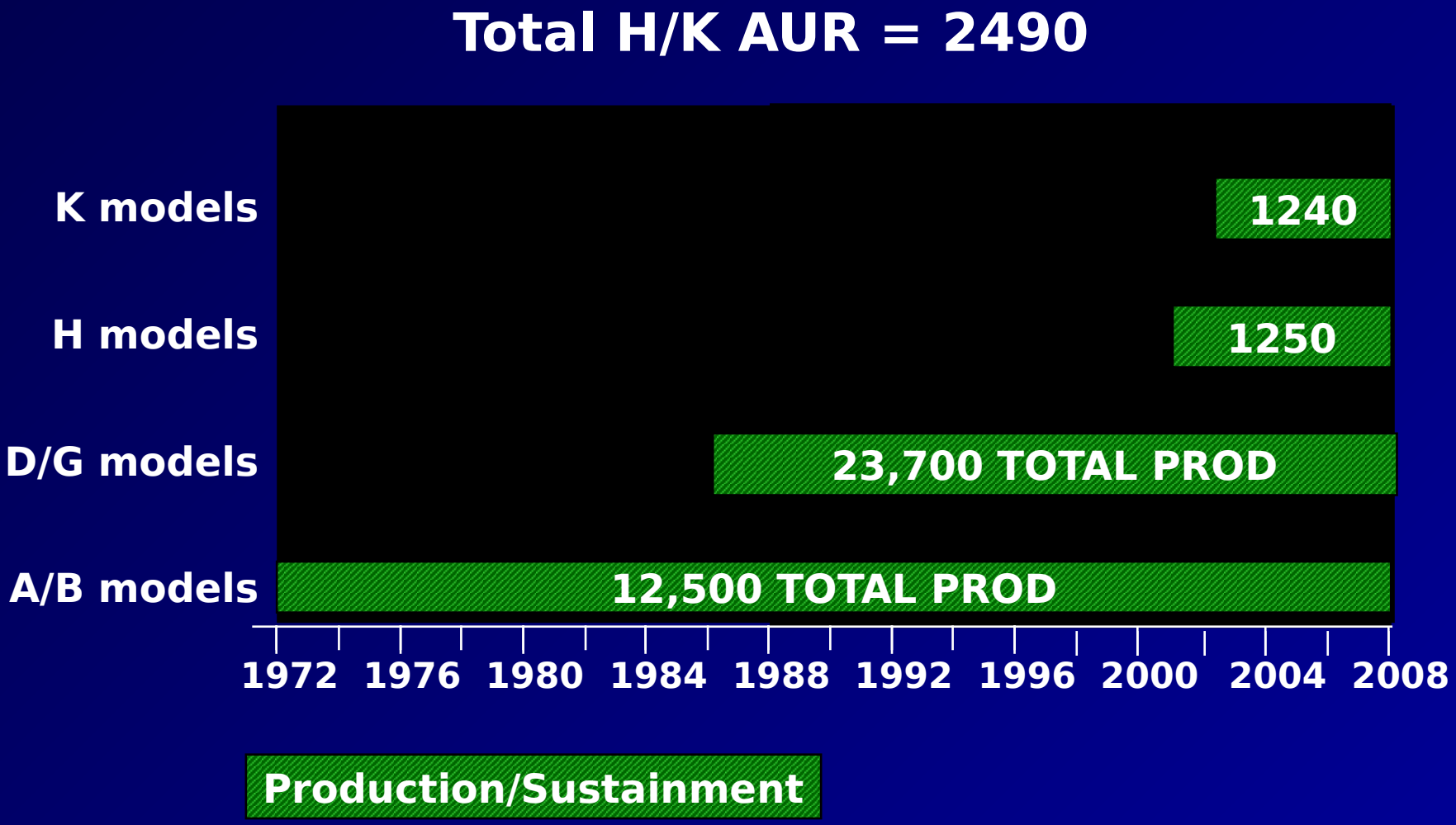
STATUS

- AGM-65A/B parts becoming obsolete
- Being replaced by the AGM-65H/K TV Mavericks
  - New TV seeker
  - Greater ranges
  - First Combat Use in OIF
- Integrated on A-10, F-16, F-15E

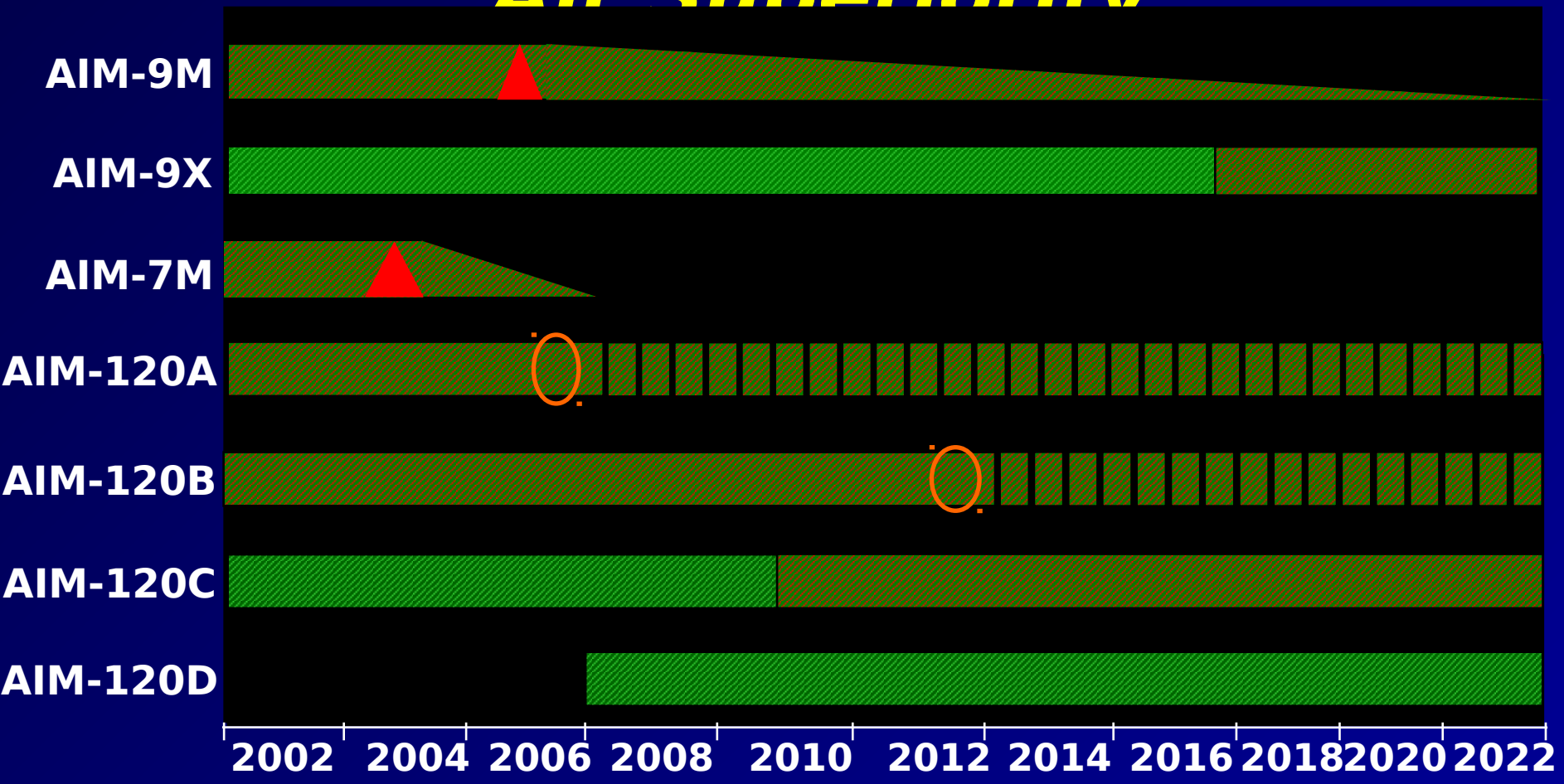
FUTURE

- Small Diameter Bomb (SDB) Phase II
  - Internal Carriage
  - All weather seeker
  - Data Link
  - ATR by classification
    - Tracked vs wheeled

AGM-65 Maverick



Self-propelled Munitions Roadmap Air Superiority



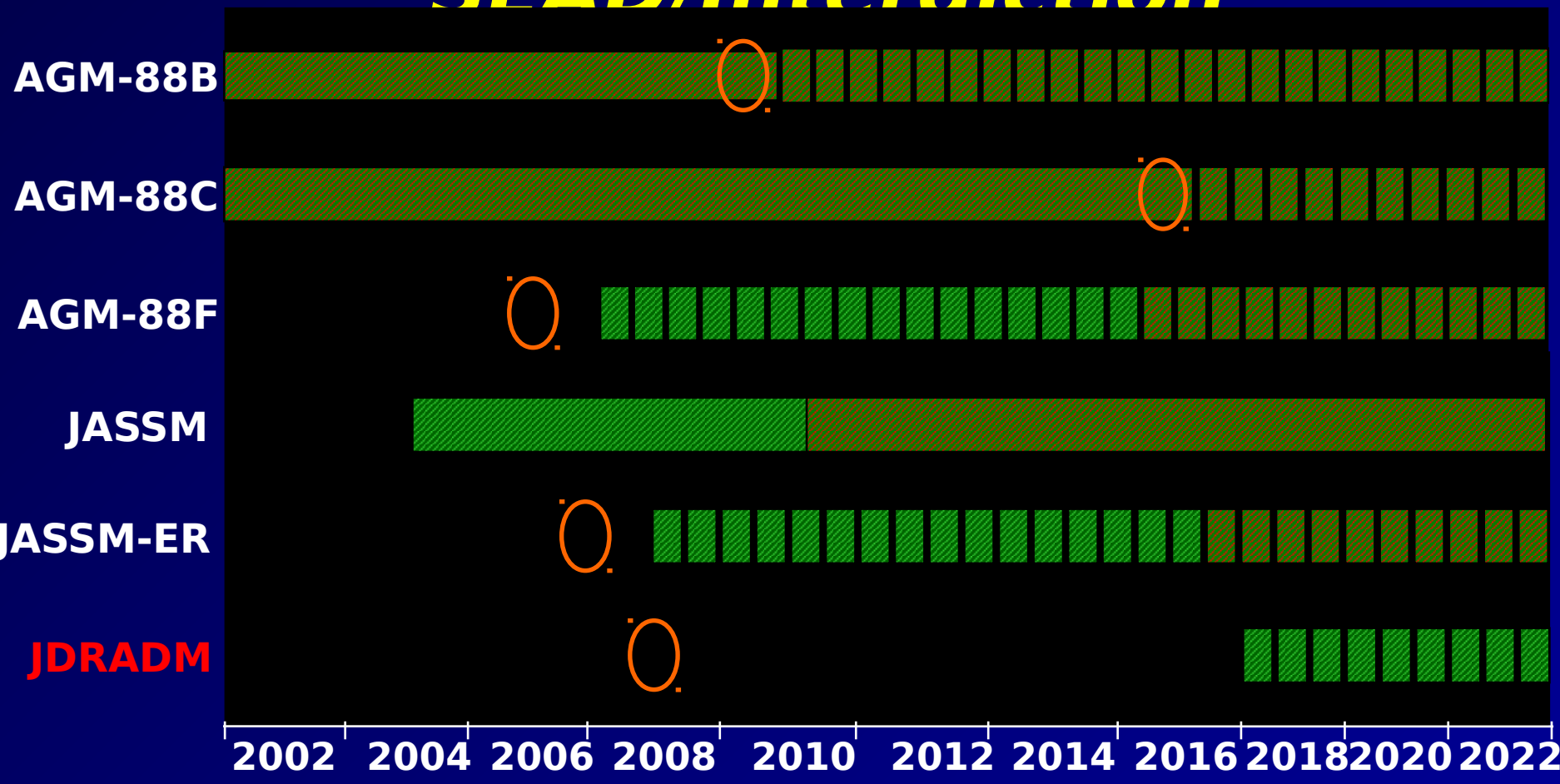
Production

Sustainment

Event

Dec. Pt

Self-propelled Munitions Roadmap SEAD/Interdiction



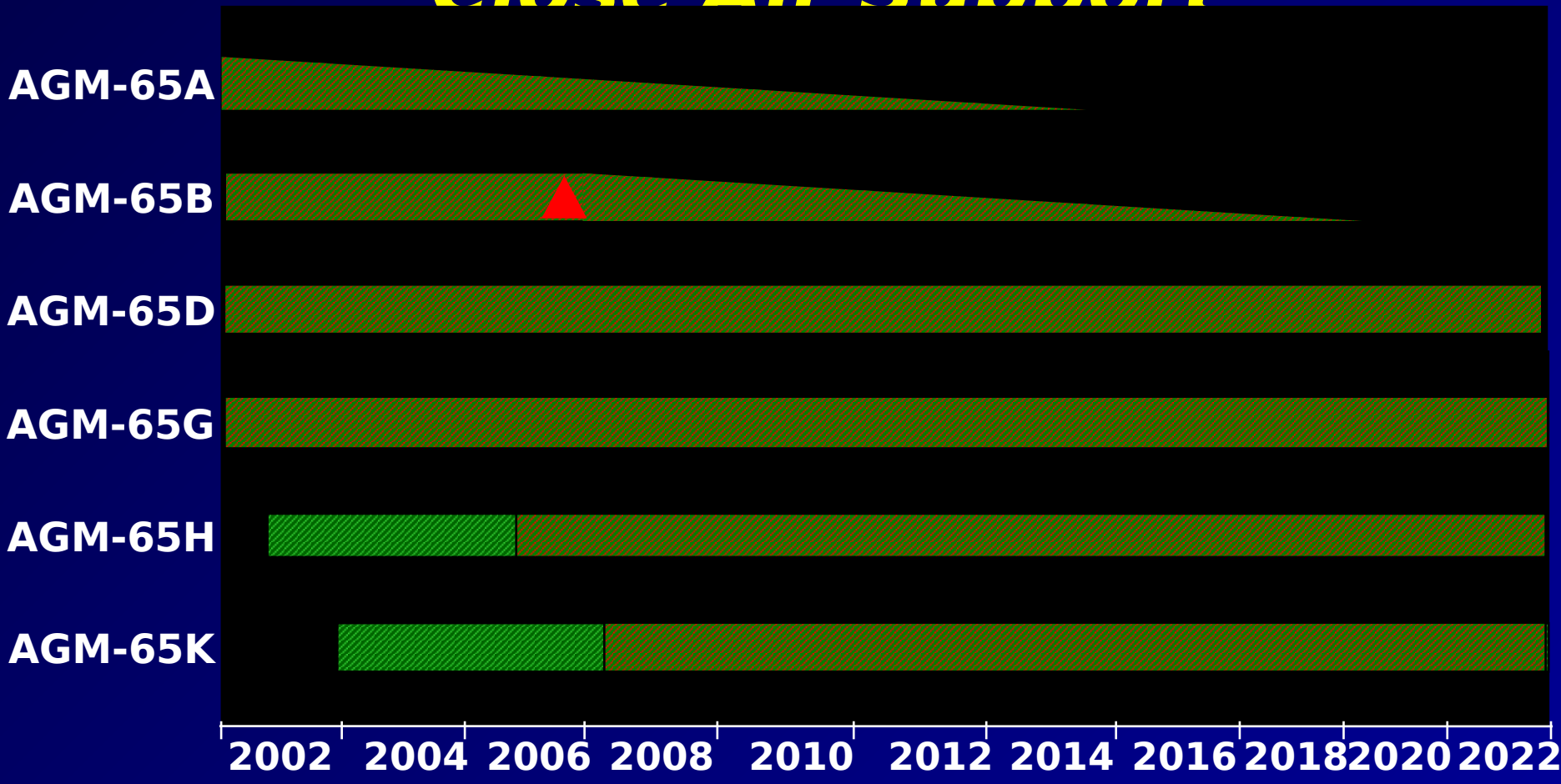
Production

Sustainment

Event

Dec. Pt

Self-propelled Munitions Roadmap
Close Air Support



Production

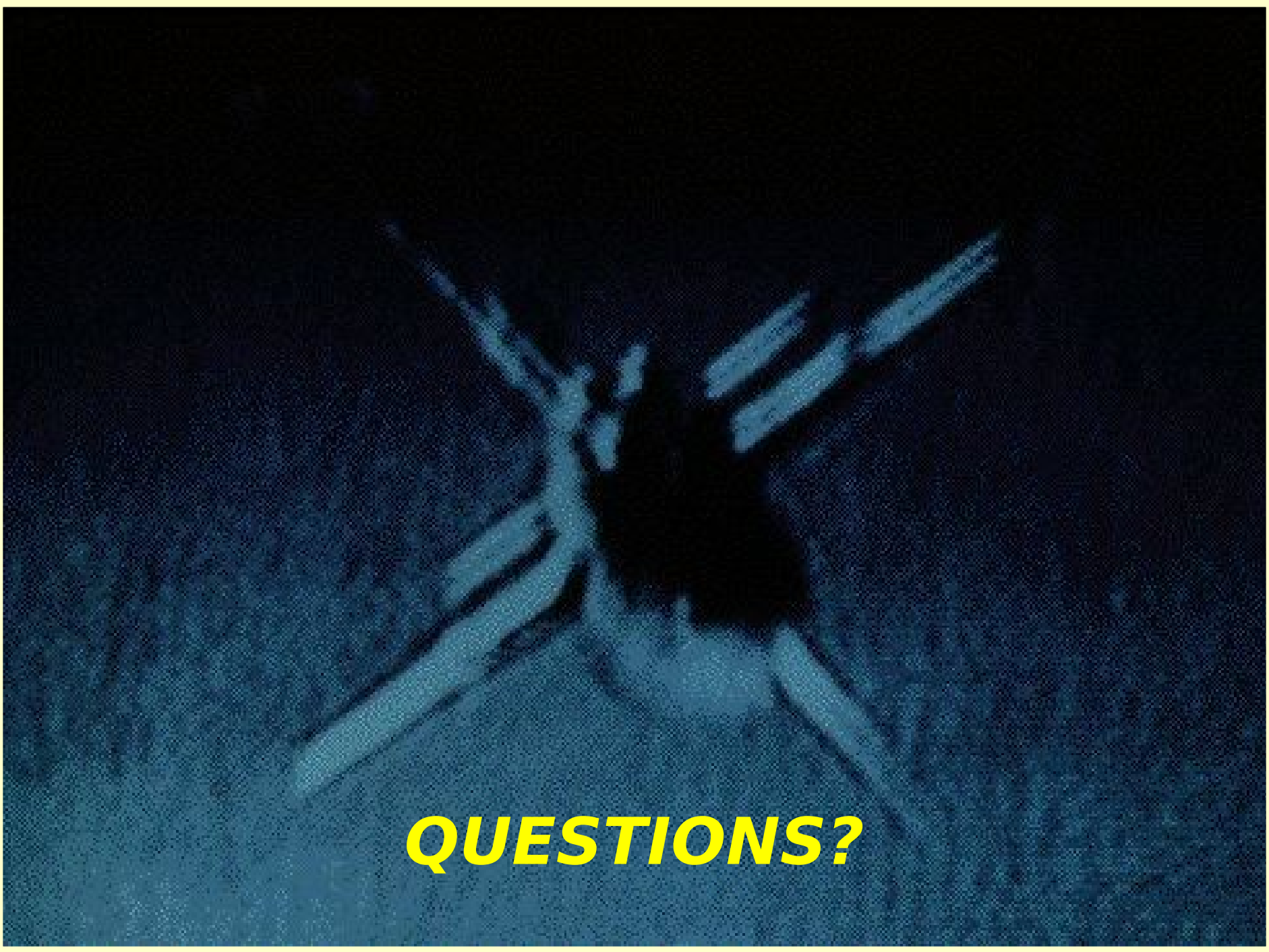
Sustainment

Event

Dec. Pt

SUMMARY

Matching the correct weapon with the target is a must!


QUESTIONS?